

Cattle and Sheep Enterprise Profitability in Scotland



2014 EDITION

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EXECUTIVE SUMMARY

- This report on enterprise profitability covers the 2013 calf and lamb crop year - a year with very challenging spring weather which impacted heavily on mortality at lambing and calving among hill sheep and suckler herds, resulting in considerable feed and forage expense for all herds and flocks. The legacy of the 2012 wet weather conditions also fed into additional veterinary costs for some during 2013. However, market prices for all classes of stock covered by the survey did increase substantially during the period reported on. Furthermore, the improved weather conditions of the second half of 2013 meant that animals thrived better than in 2012 and tended to be sold at higher weights. Consequently, most businesses saw an improvement in margins.
- The results continue to demonstrate the difficulty among suckler herds of achieving a positive margin from the market place. One third of the suckler herds surveyed reported a positive net margin from which to pay family labour and reward the risk capital invested in the business, an improvement from 22% last year. Margins were maintained more easily among store cattle finishers, where 72% of businesses surveyed achieved a positive net margin - up from the 59% who achieved this objective last year. Nevertheless, those finishing long-keep store cattle were the one category that saw a decline in margins this year.
- The difficult weather conditions in early 2013 resulted in a general deterioration in hill ewe margins, with only 10% of hill flocks returning a positive margin - down from 19% last year and 57% two years ago. Forty-five percent of upland flocks recorded a positive net margin, unchanged from last year, while among lowground flocks 83% of those surveyed recorded a positive margin, unchanged from last year. Just over three quarters of the store lamb finishers achieved a positive net margin compared to 50% achieving this objective last year. Nevertheless, those businesses reporting positive net margins still struggled to deliver a fair return for labour and capital.
- The survey results continue to show significant variation in levels of financial and technical performance within the industry.
- Top producers continue to be characterised by:
 - High physical, or technical, performance
 - Strong control over costs; and
 - Maximising returns from the market place.
- Across suckler herds, those in the top third of gross margin per animal achieved higher output through higher calf-rearing percentages, generally selling heavier calves resulting in higher yield per cow in the herd. They also typically received 6–10p/kg lwt more for the calves they sold.

- Suckler herds in the top-third of financial performance were also characterised by strong variable cost control. With the exception of lowground sucklers, those in the top third had lower total variable costs than the average while achieving higher output. In all cases, variable costs per kg of calf reared were lower among the top third. Fixed costs were also firmly controlled. In all cases, top-third producers had lower fixed costs per kg of output - even if, on occasion, fixed cost per cow was higher than the average.
- Those in the top-third of sheep producers similarly achieved higher outputs through higher stock performance. Typically, they reared about 12–22 more lambs per 100 ewes than the average. Although they did not necessarily rear lambs to the heaviest weights, the larger lamb crop typically resulted in top-third flocks selling 7–13 kg lwt more lamb per ewe. They also typically sold the highest proportion of lambs for immediate slaughter, the net effect being that income per ewe from lamb sales was £20–£30 per ewe more than the average.
- The LFA hill suckler herds surveyed had an average gross margin of £289 per cow. The top-third averaged £399 per cow gross margin, an improvement on the average of £110 per cow. The top third achieved a positive net margin of £22 per cow against the average of (-)£96. Of the 16 producers surveyed, five achieved a positive net margin. That was a decline on last year, emphasising the challenges of farming in an extensive way on severely disadvantaged land.
- The LFA upland suckler herds were split into two categories, one group selling at weaning and a second group selling yearling stores. Those selling at weaning made an average gross margin of £288 per cow, but were outperformed by their counterparts selling yearlings, who achieved an average gross margin of £343 per head. Top-third producers selling at weaning made £418 gross margin per cow, with 12% more liveweight produced per cow than the average while at the same time keeping variable costs 6% lower. Of those selling yearlings, the top third achieved a gross margin of £569 per cow. Again variable costs were strictly controlled and, compared to the average, were 19% lower while still producing 10% more liveweight per cow. Thirty per cent of businesses selling calves at weaning achieved a positive net margin. In contrast, among those selling yearlings, 33% of the businesses achieved a positive net margin.
- Non-LFA suckler herds reported an average gross margin of £336 per cow while those in the top third achieved a gross margin of £503. A significant contributor to this improvement was the 28% greater sale weight per cow. Thirty-seven per cent of businesses surveyed achieved a positive net margin.
- Rearer finisher businesses surveyed recorded an average gross margin of £501 per cow with the top-third averaging £678. However, the average net margin remained negative at (-)£66 though improved £5 over the year. Thirty-seven per cent of the businesses surveyed achieved a positive net margin, double the rate of last year.

- Cereal-based cattle finishers surveyed reported an average gross margin of £225 per beast and a net margin of £126. Those in the top-third achieved an £166 improvement in net margin over the average. Indeed 80 per cent of businesses in the survey reported a positive net margin.
- Forage-based finishers have been split into two groups: those selling cattle under 22 months of age and those selling cattle over 22 months of age. Those selling younger cattle achieved an average gross margin of £203 per beast and reported a net margin of (-)£47. Those selling older cattle achieved a gross margin of £194 per head and net margin of £12. Those in the top third of both groups achieved this objective largely through their ability to realise better returns from the marketplace and having the biggest spread between purchase and sale price. One third of those selling younger cattle achieved a positive net margin compared to 47% of those selling the older cattle.
- LFA hill sheep enterprises in the survey were badly affected by the impact on costs and physical performance of the poor weather in spring 2013. As a result, the average gross margin fell £10 per ewe compared to last year, to stand at £16 per ewe. The top third benefited from higher prolificacy and lamb weights resulting in a net output £28 per ewe higher than the average, with variable costs only £8 per ewe higher. This improved productivity transferred into a gross margin £20 per ewe better. However, despite this improved position, the top third still reported a negative gross margin of (-)£10.50 compared to the average of (-)£22.70. Ten per cent of these businesses achieved a positive margin, a significant decline from the 20% who achieved this objective for their 2012 lamb crop.
- Forty-five per cent of upland ewe enterprises surveyed reported a positive net margin, down from 80% last year, with an average of (-)£2.50 per ewe. However, those in the top third achieved a net margin of £28 per ewe - unchanged on last year. Variable costs and fixed costs among the top third were lower than the average while return from the market place was little different. Thus, the major contributor to improved returns was strong financial control.
- Although lowground breeding ewe businesses in the survey benefited from much improved ewe productivity and high prime lamb prices at the start of the 2013–2014 lamb marketing year, they incurred significant extra feed costs in the reporting year as well as the general inflation in input costs. Nevertheless, 83% of those surveyed achieved a positive margin - a three percentage point increase on the year.
- Store lamb producers achieved an average gross margin per lamb sold of £8 per lamb, and the average net margin recovered to positive territory at £3.68. The number of enterprises surveyed that reported a positive net margin recovered to stand at 78% of all businesses surveyed, up from 50% last year.



INTRODUCTION

This report summarises the results of a survey of Scottish beef and sheep enterprise profitability during the 2013 calf and lamb crop year. The survey was commissioned by Quality Meat Scotland and carried out by SAC Consulting.

The survey covers 72 breeding ewe enterprises (farming 45,700 ewes) and 116 suckler cattle enterprises (farming 12,122 suckler cows), 14 enterprises finishing a total of almost 10,000 store lambs and 50 cattle finishing enterprises selling in total just over 4,000 prime cattle. The number of organic herds and flocks in the survey has fallen to 3% of the suckler herds and 3% of the ewe flocks surveyed. The survey provides a snapshot of the industry during 2013. This report compares, for each sector, the costs, revenues and margins achieved by the top third of producers, the bottom third and the sample average.

The concluding sector of the report provides some comparative analysis with the results from 2011 and 2012. However, it must be stressed that the comparisons are not identical samples of businesses.

Within the analysis of the survey, an enterprise's estimated fixed and variable costs can be found, as well as their estimated gross and net margins. The gross margin is left after variable costs have been deducted from an enterprise's revenues. Then, once fixed costs have been subtracted from the gross margin, one is left with the enterprise's net margin, which rewards the farmer for their labour and capital investment. Fixed costs have been allocated to the livestock enterprises on a farm in direct proportion to their share of the total sales revenue of that business. Within mixed livestock farms, fixed costs have been allocated between cattle and sheep enterprises in relation to their proportion of Grazing Livestock Units. The results are again ranked by gross margin per head of livestock.

The analysis has been extended to include estimates of the time committed to the enterprises by family labour for which no charge has been recorded in the estimate of net margins. The level of income required to provide a 5% return on an enterprise's working capital has also been estimated, in addition to the opportunity cost of the land used.

All area-based support payments have been excluded from this year's analysis of the returns derived from livestock enterprises, since there is no obligation for livestock production to take place in order to receive area payments. However, the Scottish beef calf premium has been included, since it is coupled to the level of production.

The considerable range of land types and production systems found in Scotland inevitably mean that any survey of businesses cannot cover all options. However, results are presented for a comprehensive range of enterprise types, namely:

- LFA Hill herds selling calves at weaning
- LFA Upland herds selling calves at weaning
- LFA Upland herds selling forward stores
- Non-LFA herds
- Rearer-finisher herds
- Cereal-based finishing enterprises finishing cattle at under 20 months of age
- Forage-based enterprises finishing cattle at under 22 months of age
- Forage-based enterprises finishing cattle at over 22 months of age
- Non-LFA breeding flocks
- LFA upland ewe flocks
- LFA hill flocks using Blackface or Cheviot stock and
- Store lamb finishers.

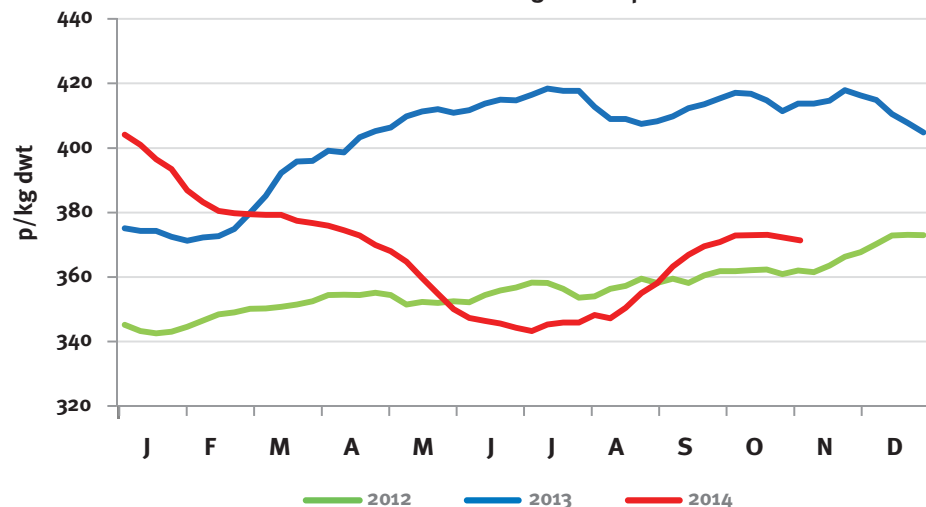
Both the range of performance and the key contributing factors to these differences in performance between businesses are demonstrated by the results of the survey. The results also provide individual businesses with a benchmark against which to gauge their own performance, thereby allowing them to investigate the strengths and weaknesses of their enterprise compared with those of similar businesses.



Cost Price Changes During 2013

Ex-farm cattle prices began 2013 30p/kg (17%) higher than a year earlier, with the average steer selling at 375p/kg dwt. Prices then edged lower for six weeks before rising sharply until the end of March. They then picked up steadily over the next four months until they reached an annual peak of 418p/kg in mid-July. As demand slowed seasonally in late July, prices then eased back before rising slowly through September and returning close to the 418p/kg mark in October. After a brief lull, the market then picked up through November as processors sought out the best-quality cattle to meet festive demand. Once these supplies had been covered, producer prices fell back sharply through December and closed the year at 405p/kg – 30p/kg higher than they had started it. During 2013, prime steers averaged 403p/kg. This was up 47p on 2012; an increase of 13%.

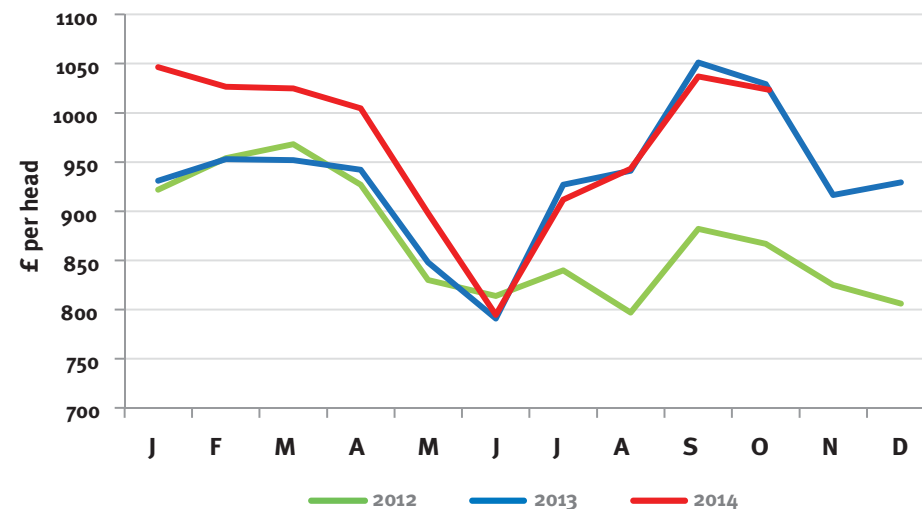
Scottish deadweight steer price



Prime cattle producer prices averaged well above year earlier levels throughout 2013. In the first two months of the year, the premium was around 7–9%. It then widened quickly to 13% through the spring, before topping out at 16–18% from May until July. The gap over 2012 then narrowed slightly to 14–15% in August and held at this level until late November. The year-on-year price differential then narrowed quickly in the final weeks of 2013 and closed the year at a similar level to where it had started (8.5%).

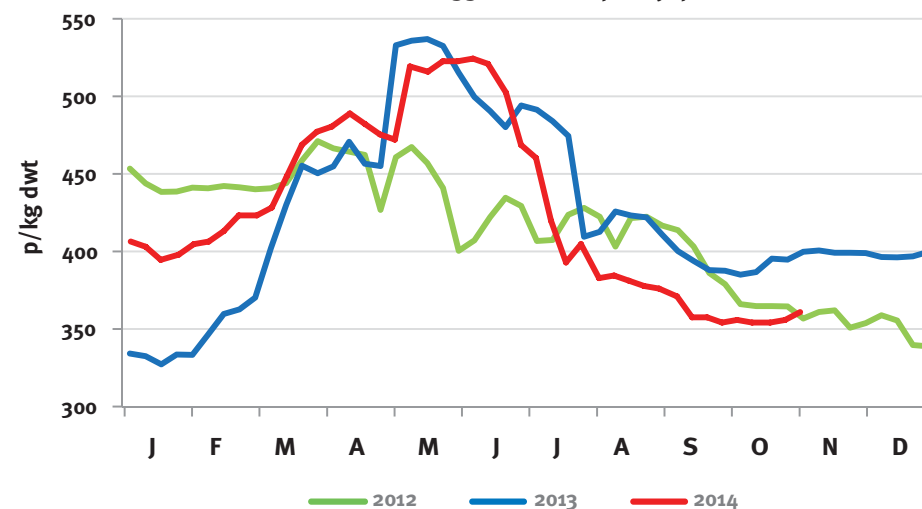
Store cattle prices closely tracked their year-earlier levels throughout the first half of 2013. After dipping slightly behind 2012 levels in June they then picked up strongly through the third quarter of the year, reaching their seasonal peak in September, around 20% higher than 12 months before. Although the market cooled through the final quarter of 2013, prices remained well above year-earlier levels, ending the year 15% higher.

Store steers 12-18 months old



Prime sheep producer prices opened 2013 at 334p/kg dwt. This was almost 120p/kg (26%) less than 12 months before. After steadying for six weeks they then rose sharply through March and stabilised around the 450p/kg level in April. A slow start to the new season marketings saw prices rise sharply, peaking at 537p/kg, before a period of warm dry weather led to a surge in supplies, and therefore falling prices, in the second half of July. After a brief stabilisation in August, the market cooled again in September as supplies reached their annual peak and prices fell to around 385p/kg.

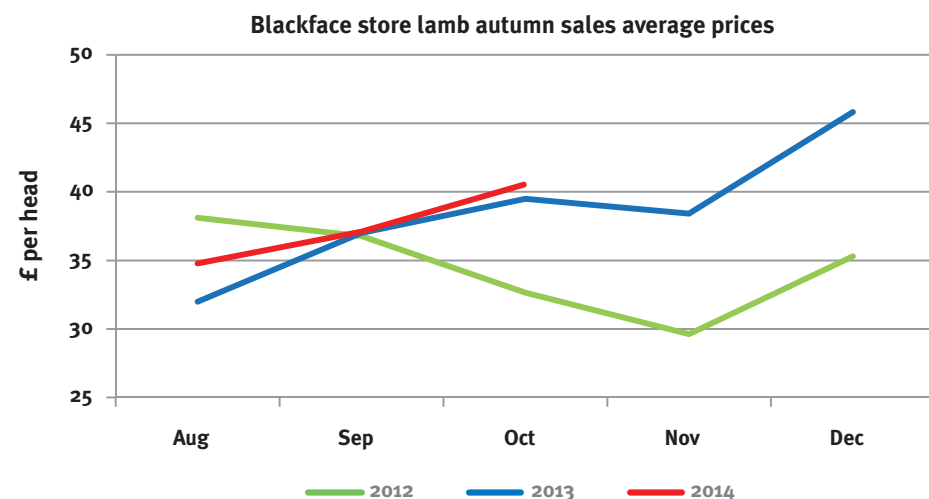
GB lambs and hogs standard quality quotation



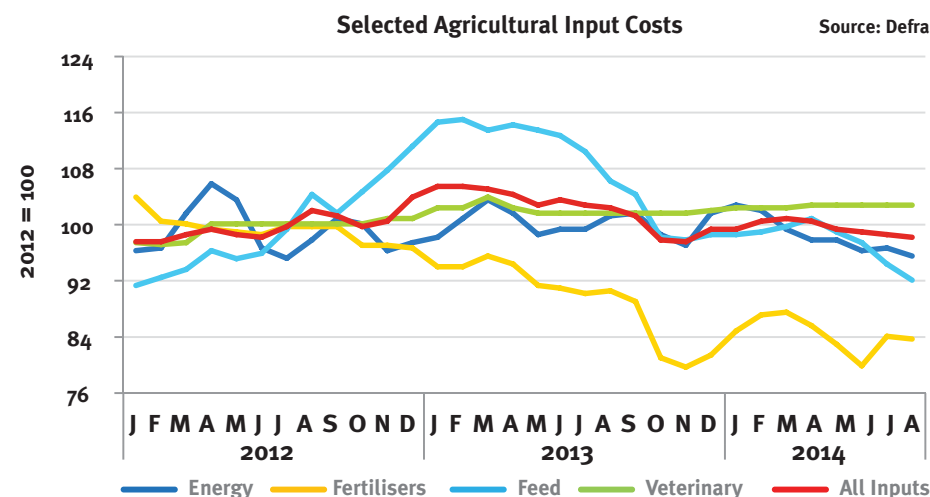
Then there was a slight lift in October as two Islamic festivals created some additional demand, before prices held steady through to the year-end at just below the £4 a kilo mark. This was around 20% higher than a year earlier. During 2013, deadweight prime sheep prices averaged 3% higher than in 2012 at 411p/kg.

In contrast to the previous year, store lamb prices trended higher through the autumn of 2013. This meant that, having begun the year lower, they traded higher than year-earlier levels from October onwards.

The average new season Blackface store lamb sold for just over £38 a head in 2013. This was 12% higher than in the same period of 2012.



Agricultural input prices trended lower through 2013. This was mainly down to movements in feed and fertiliser costs. Taking fertilisers first, weaker demand for minerals as emerging economies - particularly China - slowed was one factor pushing fertiliser costs down for a second year. Meanwhile, feed costs declined due to the much better global crop harvest in 2013. Initially prices fell on the back of positive supply forecasts, before declining further as the expected production increases materialised. Energy costs were broadly flat, rising and falling on three separate occasions during the year. The first peak came early in the year as global oil supplies tightened, before falling back as supplies improved. There was then a further peak in the third quarter due to geopolitical tensions, which eased after a deal to ease sanctions on Iran was agreed. The third came after domestic energy firms announced higher tariffs in November.



2014 Prospects

Since the survey data was collected, there have been some changes in the marketplace. Cattle supplies have improved, with increases in the numbers of prime cattle reaching abattoirs over the summer. In addition, these cattle have been significantly heavier than in 2013, adding to the increase in the volume of beef produced. Supplies have also been higher in Ireland, raising imports while the export trade has been pressurised by a stronger sterling against the euro. As a consequence, the downturn in cattle prices that began at the end of 2013 continued right through the first half of 2014. Although there has been some recovery through the third quarter of the year, prices were still 10% lower than year earlier levels at the end of September. Store cattle prices began the year much higher than 12 months before, but have fallen back to match last year's levels since June.

On the sheep side, producer prices have shown a similar seasonal trend to last year. However, they began 2014 from a much higher base level, keeping them ahead of last year for much of the first third of the year. Due to a good winter of weather across much of the country, there was an increased lamb crop and the continuing good weather through the spring and summer helped these lambs to grow quickly. Though lamb prices made a strong start to the season, they fell sharply in June and July, as lamb marketings ran well ahead of year earlier levels.

Producer prices were also hindered by exchange rate movements as a stronger sterling against the euro has made the export trade far less profitable, particularly given the ongoing economic problems on the Continent. Despite some signs of domestic demand beginning to pick up, prices held around 10% below 2013 levels through August and September. However, there was an increase in prices in late September as processors secured additional product ahead of an Islamic festival at the beginning of October.

The market has since held firm into late October, though prices have still been trading around 10% lower than last year. Prices have averaged 7.5% lower since the start of the new lamb marketing year in May 2014.

The momentum gained in the domestic economy in 2013 has been carried through into 2014, and the UK economy has been growing strongly. Although earnings growth has continued to disappoint, unemployment has been declining rapidly and inflation has fallen below target, helping raise consumer confidence to the highest levels for a number of years. Some promising signs of this beginning to filter through to the red meat sector have appeared, following a long period of higher retail prices subduing consumption. Indeed, beef consumption was 5% higher than 12 months before in the 12 weeks to mid-August, while lamb consumption volumes showed 20% growth in the four-week period to mid-August. On the export side, conditions have worsened this year due to the impact of a stronger sterling on UK price competitiveness, plus a difficult trading environment in the Euro Area - where the positive signs of economic recovery have dissipated. Beef exports have also been dampened by a better supplied European market.

Input costs have continued to trend lower in 2014. Although fertiliser prices have stabilised, feed and energy have become cheaper. On the feed side, the 2014 harvest appears to have gone extremely well across most of the world, placing further pressure on prices. Meanwhile, oil and gas supplies have been improving at the same time as demand has failed to meet expectations, and this has lowered energy costs. Better weather conditions should also have reduced the volume of both feed and energy requirements. However, positive developments on the input side may not have been significant enough to cancel out lower average farmgate prices, suggesting that margins may not have improved overall. Then again, better growing conditions than in 2013 have boosted carcase weights and so revenues per head have not fallen to the same degree as prices per kilo. Mortality rates will also have been lower, and calving and lambing ratios will have been higher on average.



As is always the case, though, profitability will also be linked to the timing of sales and input purchases. At certain points of the year, producer prices have been above 2013 levels and at other times much lower. Store cattle buyers in the third quarter of last year are likely to have been particularly hard-hit given the way prime cattle prices fell through the first half of 2014. On the sheep side, producers selling lambs in mid-September will likely have fared worse than those selling at the end of the month; though if they had a better lambing this year then margins may not necessarily have worsened compared to last year. In terms of inputs, the later they were purchased, the less they are likely to have cost.

Structural Changes in 2013

Among the suckler herds surveyed, 22% increased cow numbers by more than 5% while 26% reduced cow numbers by more than 5%. Overall, the number of cows farmed by those in the survey declined by 1% in line with the national decline of 0.7% reported in the Scottish agricultural census of December 2013. Among the farm types surveyed, the largest decline in cow numbers occurred among those selling yearling stores, where cow numbers fell 2.5%.

With regard to breeding sheep enterprises, the total number of ewes farmed by those in the survey increased by 5.5%, a much bigger increase than the 2% decline reported in the national flock in the December 2013 Scottish agricultural census. All flock types recorded some increase, with the biggest proportional increase in ewe numbers occurring among hill flocks while the smallest increases occurred among upland flocks. Thirty-seven per cent of flocks increased in size by more than 5% while 24% of surveyed business reduced flocks by more than 5%.



CATTLE ENTERPRISES

Results from LFA hill suckler herds

The 16 herds in this category are those enterprises where open, unimproved hill land makes up more than three quarters of the farm area, resulting in low stocking densities, and where more than half the calves are sold at weaning. Herd size ranged from 17 to 192 cows, with an average size of 60 head.

Hill suckler herds achieved an average gross margin of £289 per cow. The top third achieved an average gross margin of £399, 38% better than the average and almost three times the level among the bottom third.

Fixed costs averaged £385 per cow, but with a considerable variation from £70 to £643 per cow. This resulted in an average net margin of (-)£96 per cow, while the top third achieved a positive net margin of £22.

Although the top third reared three more calves per 100 cows they sold them at lower weights than the average. This meant that the weight of calf produced per cow was little different between them and the average, but 4% better than the bottom third. Consequently, the main contributor to the improved margin was strict cost control. Those in the top third held variable costs £83 lower than the average through lower feed and veterinary costs. They also constrained fixed costs to £9 per cow less than the average.

Across the businesses surveyed, the average number of calves reared per 100 cows was 89. The top-third producers' calf rearing rate was 92 calves per 100 cows while bottom third producers reared 87 calves per 100 cows – two less than the average. Calf losses through stillbirths and mortality post calving were much lower (at four calves per 100 cows) among the top third than the average of 6 losses. Furthermore, top-third producers had lower cow mortality rates than the average.

The most profitable herds show a high level of technical performance, measured as calves reared ratios and growth rates along with lower cow mortality, notwithstanding lower veterinary costs and lower feed costs.

When compared to their upland counterparts selling weaned calves but farming more favoured land, these hard hill suckler herds returned very similar gross margins and herd prolificacy but, through a lower fixed-cost burden, achieved net margins £27 per cow better than their counterparts.

LFA hill suckler herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	16	5
Average herd size (head)	53	60	89
		£ per cow	
Calf output after valuation changes	576.55	630.35	647.22
Subsidies	58.22	57.12	53.36
Gross Output	634.78	687.46	700.58
Less replacements	68.38	61.01	47.13
Net Output	566.40	626.45	653.45
Variable Costs			
Purchased concentrates	127.48	126.01	122.23
Home-grown concentrates	0	0	0
Roughages purchased	66.74	48.72	24.40
Forage	125.96	78.20	49.34
<i>Total Feed and Forage</i>	<i>320.18</i>	<i>252.93</i>	<i>195.97</i>
Veterinary	49.90	31.04	14.18
Bedding	12.78	18.13	18.44
Other costs	39.85	34.96	25.80
Total Variable Costs	422.72	337.05	254.39
Gross Margin	143.68	289.40	399.06
Fixed Costs			
Labour	70.58	103.28	165.99
Contractors	19.54	14.22	9.03
Power and machinery	106.72	96.95	77.60
Property maintenance and rent	66.34	71.03	60.83
Depreciation	66.08	58.68	36.96
Finance	1.85	4.60	0.85
Administration	45.62	36.69	25.55
Total Fixed Costs	376.75	385.46	376.83
Net Margin	(-)233.06	(-)96.06	22.23
Annual herd maintenance cost pence per kg calf produced	28	24	18
Variable cost – pence per kg calf produced	170	130	99
Fixed cost – pence per kg calf produced	152	149	147
Unpaid family labour hours	20 hrs 55 mins	12 hrs 50 mins	6 hrs 10 mins

Figures may not tally due to rounding

LFA hill suckler herds - technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	31	33	36
Calves born dead or alive per 100 cows	95	95	96
Calves born dead per 100 cows	4	3	3
Calves died before weaning per 100 cows	4	3	1
Calves reared per 100 cows	87	89	92
Daily liveweight gain (kg)	0.78	0.90	0.95
Weight - kg per calf sold	284	293	283
Weight produced kg per cow	247	259	257
Cow replacement rate per 100 cows	11	12	12
Cow mortality %	3.5	2.8	1.9
Purchased concentrates kg per cow	568	542	503
Home-grown concentrates kg per cow	0	0	0
Stocking rate GLU/ha	0.15	0.15	0.20

Figures may not tally due to rounding

Results from LFA suckler herds

The upland suckler herd sample has been split into two sub-groups in order to give a better reflection of the production systems in use in Scotland. One group includes farms of a more extensive nature that sell the majority of calves at weaning, while the other group has farms that sell calves as forward stores at around one year old. Although the main calving period was noted, the sample size of autumn calving herds was insufficient to allow separate analysis of the different cost structures between spring and autumn calving.

Extensive upland herds selling calves at weaning

The 33 herds in this category farmed 4,170 cows, an average herd size of 126 cows within a range from 24 to 356 cows, and reported an average gross margin of £288 per cow and a net margin of (-)£123 per cow. The top third of enterprises returned a gross margin of £418 per cow, £130 (45%) better than the average and £260 per cow better than the bottom third. Top-third producers reported a net margin of (-)£7, £116 per head better than the average. Thirty per cent of businesses reported a positive net margin.

Top-third producers produced 30kg more calf weight per cow than the average and 60kg more than the bottom third. This was achieved through a combination of factors: Higher calving percentages – 91 calves reared per 100 cows (4 more than the average); and 17 kg per calf higher sale weights.

Top-third producers had lower cow mortality rates and lower herd maintenance rates, resulting in lower herd maintenance charges.

Variable costs were 6% lower among the top third than the average. Although they used more purchased concentrates, they used less home-grown concentrate and spent less on forage and roughages, bedding and veterinary costs.

Fixed costs per cow were highest among the top third, with notably higher power and machinery, depreciation and finance costs. However, because of better technical performance, those in the top third spread their fixed costs over a greater weight of calf produced and fixed costs per kg of calf reared were some 7% lower than the average.

Upland herds selling calves at around one year old

Twenty-seven herds, farming an average of 104 cows each, were categorised as herds selling calves at an older age of about 12 months. This older age at sale resulted in the average weight of calves sold being 391kg, some 34% higher than those sold at weaning. As a consequence, not surprisingly, variable costs per cow were higher (by 36%) among this group than those of their counterparts selling calves at weaning.

However, when considered against the weight of animal sold rather than per cow, the variable costs among this group were only 2.5% higher when measured per kg of calf reared.

Heavier sale weights resulted in an income considerably higher than those selling weaned calves, and the extra variable costs associated with keeping the calves longer were easily recouped from the marketplace. The average gross margin among this group was consequently some 20% better than for those selling weaned calves.

However, timing of sale also played a part in the income earned by these businesses. Those selling calves at weaning in the autumn of 2013 averaged 251 p/kg lwt, just over 20% better than the previous year, while those selling older calves in early 2014 averaged 237 p/kg – up 9% on the year.

Fixed costs, however, were 8% higher among this group compared to those selling younger cattle, due particularly to higher labour, administration and finance costs. As a result the £56 per cow improvement in gross margin was eroded to a point where the net margin among those selling yearling stores was only £21 per cow better than those selling weaned calves.

Top-third businesses selling yearlings returned a gross margin of £569 per cow, £225 (65%) better than the average and £345 better than the bottom third producers. They achieved this better financial return through improved herd productivity, rearing seven more calves per 100 cows than the average. They sold these calves at a slightly higher weight, resulting in the yield per cow in the herd being 10% higher than the group average.

Top-third producers fed a significantly smaller quantity of purchased and home grown feed. In contrast, bottom-third producers incurred more concentrate feed and roughage per cow than the average, without seeing any benefits in increased production.

Top-third producers had a similar fixed cost burden to the average, largely as a result of substituting unpaid family labour for paid labour. However, they did carry the highest finance charges and had the highest depreciation charges, suggesting a higher degree of mechanisation and capital investment in the business. Nevertheless, 88% of the businesses in the top third achieved a positive net margin.

Over the year, 25% of those businesses selling yearling calves reduced their herd size while 18% of those selling weaned calves reduced their herd size.

Extensive upland suckler herds selling weaned calves

Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	11	33	11
Average herd size (head)	123	126	115
		£ per cow	
Calf output after valuation changes	539.65	634.41	736.35
Subsidies	46.69	47.20	48.77
Gross Output	586.34	681.61	785.13
Less replacements	116.74	92.18	81.62
Net Output	469.64	589.43	703.51
Variable Costs			
Purchased concentrates	12.47	27.52	33.74
Home-grown concentrates	11.32	18.70	10.28
Roughages purchased	47.65	47.54	40.75
Forage	132.93	109.01	111.42
<i>Total Feed and Forage</i>	<i>204.37</i>	<i>202.76</i>	<i>196.19</i>
Veterinary	43.39	46.13	42.91
Bedding	40.27	29.96	27.46
Other costs	22.82	22.54	18.01
Total Variable Costs	310.84	301.39	284.57
Gross Margin	158.79	288.04	418.93
Fixed Costs			
Labour	63.14	74.57	44.63
Contractors	32.29	37.41	49.82
Power and machinery	83.37	91.03	113.58
Property maintenance and rent	79.89	84.20	84.59
Depreciation	84.25	77.37	82.35
Finance	22.28	21.68	29.02
Administration	25.86	25.52	22.09
Total Fixed Costs	391.08	411.79	426.08
Net Margin	(-)232.28	(-)123.76	(-)7.14
Annual herd maintenance cost pence per kg calf produced	53	36	29
Variable cost – pence per kg calf produced	140	120	101
Fixed cost – pence per kg calf produced	176	163	151
Unpaid family labour hours	8 hrs 35 mins	8 hrs 35 mins	13 hrs 45 mins

Figures may not tally due to rounding

Extensive upland suckler herds selling weaned calves

Technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	26	25	27
Calves born dead or alive per 100 cows	90	93	95
Calves born dead per 100 cows	3	3	3
Calves died per 100 cows	5	3	1
Calves reared per 100 cows	82	87	91
Daily liveweight gain (kg)	1.02	1.12	1.26
Weight - kg per calf sold	271	292	309
Weight produced kg per cow	222	252	282
Cow replacement rate per 100 cows	18.5	16	15
Cow mortality %	6	3.5	3
Purchased concentrates kg per cow	46	127	164
Home-grown concentrates kg per cow	77	123	75
Stocking rate GLU/ha	1	1	1

Figures may not tally due to rounding



Upland suckler herds selling yearling calves

Financial performance measures

	Bottom Third	Average	Top Third
Number in sample	9	27	9
Average herd size (head)	109	104	63
		£ per cow	
Calf output after valuation changes	771.09	789.42	902.49
Subsidies	44.31	47.70	57.64
Gross Output	815.41	837.13	960.13
Less replacements	90.54	83.03	53.83
Net Output	724.87	754.10	906.30
Variable Costs			
Purchased concentrates	128.66	108.29	78.88
Home-grown concentrates	64.67	38.09	29.70
Roughages purchased	62.68	38.43	32.18
Forage	91.54	99.20	99.67
<i>Total Feed and Forage</i>	<i>347.56</i>	<i>284.01</i>	<i>240.03</i>
Veterinary	69.26	53.78	32.74
Bedding	48.22	39.01	28.87
Other costs	36.14	33.61	34.29
Total Variable Costs	501.19	410.41	336.33
Gross Margin	223.68	343.69	569.98
Fixed Costs			
Labour	158.96	101.79	39.82
Contractors	27.40	33.85	28.06
Power and machinery	99.22	89.39	107.14
Property maintenance and rent	81.37	83.64	63.90
Depreciation	41.52	73.16	126.99
Finance	26.36	33.33	46.18
Administration	35.81	31.34	37.05
Total Fixed Costs	470.65	446.52	449.14
Net Margin	(-)246.97	(-)102.83	120.84
Annual herd maintenance cost pence per kg calf produced	28	25	15
Variable cost – pence per kg calf produced	152	123	91
Fixed cost – pence per kg calf produced	143	134	122
Unpaid family labour hours	3 hrs 20 mins	7 hrs 50 mins	17 hrs 40 mins

Figures may not tally due to rounding

Upland suckler herds selling yearling calves

Technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	24	26	30
Calves born dead or alive per 100 cows	87	91	97
Calves born dead per 100 cows	4	3	4
Calves died before weaning per 100 cows	4	3	1
Calves reared per 100 cows	79	85	92
Daily liveweight gain (kg)	1.11	1.06	1.04
Weight - kg per calf sold	415	391	397
Weight produced kg per cow	328	333	367
Cow replacement rate per 100 cows	17	16	9
Cow mortality %	1.5	2.3	1
Purchased concentrates kg per cow	537	464	340
Home-grown concentrates kg per cow	450	263	196
Stocking rate GLU/ha	0.4	0.7	0.8



Results from non-LFA lowground suckler herds

Sixteen non-LFA suckler enterprises, farming 1,371 cows, were surveyed. They achieved an average gross margin of £336 per cow and an average net margin of (-)£68 in a range from (-)£503 to +£222. Six businesses reported a positive net margin per cow.

- Top-third producers achieved an average gross margin of £503 per cow, £168 (50%) better than the overall average. Fixed costs per cow among the top third were lower than the average, and thus the improvement in financial performance increased to £186 at net margin level.
- Improved margin was aided by better physical performance including:
 - Higher calf rearing rates – 7 more calves reared per 100 cows than the average
 - Higher sale weights - 66 kg per head heavier at sale than the average.
- Although average sale price was lower than the average among the top third of producers, the greater physical output per cow resulted in gross output £217 per cow higher than the average.
- Those in the top third by gross margin carried the highest variable costs. Although feed and forage costs were much higher than the average, they were lower than among the bottom third. Higher veterinary and sundry livestock expenses will be a reflection of the greater number of calves reared by the top third.
- Top-third producers had strong control over fixed costs although they did carry the highest contractor, power and machinery, finance and administration costs.
- As with other enterprise types among the suckler herds, the bottom-third producers were characterised by low physical performance combined with higher input costs per cow.



Non-LFA lowground suckler herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	16	5
Average herd size (head)	69	86	80
		£ per cow	
Calf output after valuation changes	482.19	665.84	879.34
Subsidies	50.55	50.41	54.20
Gross Output	532.73	716.25	933.55
Less replacements	99.28	89.32	94.58
Net Output	433.45	626.92	838.97
Variable Costs			
Purchased concentrates	68.32	37.87	44.50
Home-grown concentrates	9.28	9.43	12.56
Roughages purchased	23.96	41.94	58.75
Forage	115.21	82.36	83.42
<i>Total Feed and Forage</i>	<i>216.71</i>	<i>171.60</i>	<i>199.23</i>
Veterinary	48.08	51.46	66.15
Bedding	36.23	43.08	34.12
Other costs	15.37	24.82	36.83
Total Variable Costs	316.45	290.95	336.33
Gross Margin	117.00	335.97	502.64
Fixed Costs			
Labour	121.91	69.89	47.65
Contractors	18.58	25.40	36.66
Power and machinery	76.06	101.39	115.25
Property maintenance and rent	72.69	86.12	62.28
Depreciation	73.37	78.70	56.99
Finance	19.42	22.94	39.91
Administration	20.48	19.56	26.01
Total Fixed Costs	402.52	404.01	384.75
Net Margin	(-)285.52	(-)68.04	117.89
Annual herd maintenance cost pence per kg calf produced	45	32	26
Variable cost – pence per kg calf produced	145	105	94
Fixed cost – pence per kg calf produced	184	145	108
Unpaid family labour hours	8 hrs 50 mins	8 hrs 20 mins	9 hrs 10 mins

Figures may not tally due to rounding

Non-LFA lowground suckler herds - technical performance measures

	Bottom Third	Average	Top Third
Cows per bull	24	22	16
Calves born dead or alive per 100 cows	85	90	98
Calves born dead per 100 cows	5	4	4
Calves died before weaning per 100 cows	1	1	2
Calves reared per 100 cows	79	85	92
Daily liveweight gain (kg)	1.27	1.16	1.03
Weight - kg per calf sold	275	325	391
Weight produced kg per cow	218	276	356
Cow replacement rate per 100 cows	22	18	13
Cow mortality %	6	3	3
Purchased concentrates kg per cow	321	310	274
Home-grown concentrates kg per cow	58	55	69
Stocking rate GLU/ha	0.7	1.13	1.2

Figures may not tally due to rounding



Results from rearer finisher enterprises

In the case of these 24 enterprises, farming 2,811 cows, the reported margins relate to the costs and income for a 12-month period to the end of April 2014.

- The businesses surveyed produced an average gross margin per cow of £501, within a range from £200 to £1100 per cow and an average net margin of (-)£66 per cow. Nine (37%) enterprises reported a positive net margin.
- The top-third producers ranked by gross margin per cow achieved a net output £184 higher than the average, largely through the production of 17% more saleable output per cow. This was partially the result of higher prolificacy (seven more calves reared per 100 cows), heavier sale weights (+21kg) and better sale prices (+11p/kg lwt); and partly due to valuation changes in respect of yearling cattle. Net output was also impacted by the lower cow replacement rates among the top third and hence lower herd maintenance charges.
- Higher output was the greatest contributor to higher margins among the top third, although they did spend £90 (16%) per cow less on fixed costs than the average. Variable costs were £13 per head higher than the average among the top third, as they carried slightly higher feed and forage costs – and sundry expenses were higher.
- With the exception of finance and contractor costs, those in the top third spent less than the average on fixed costs, with paid labour and depreciation charges being notably lower than the average.
- Bottom-third producers had significantly lower output per cow, a reflection of lower calving rates and higher herd maintenance charges. Variable costs were 4.5% higher among the bottom third despite the lower number of calves reared per cow. Fixed costs were little different, 1% higher, between the average and the bottom third.



Rearer finisher herds - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	8	24	8
Average herd size (head)	125	117	99
	£ per cow		
Calf output after valuation changes	1032.46	1150.54	1329.71
Subsidies	45.55	48.17	52.30
Gross Output	1078.01	1198.71	1382.02
Less replacements	98.16	90.18	83.04
Net Output	979.85	1108.53	1298.97
Variable Costs			
Purchased concentrates	84.96	99.21	98.19
Home-grown concentrates	164.18	138.50	164.01
Roughages purchased	63.34	65.23	69.03
Forage	165.38	147.11	135.33
<i>Total Feed and Forage</i>	<i>477.86</i>	<i>450.05</i>	<i>466.56</i>
Veterinary	61.99	58.37	55.58
Bedding	46.61	53.60	48.27
Other costs	49.36	45.48	50.40
Total Variable Costs	635.82	607.50	620.80
Gross Margin	344.03	501.03	678.17
Fixed Costs			
Labour	110.87	111.86	71.83
Contractors	49.64	49.20	52.76
Power and machinery	134.71	136.68	122.08
Property maintenance and rent	102.68	99.60	80.78
Depreciation	110.89	107.10	70.29
Finance	24.69	29.84	46.77
Administration	40.57	33.31	33.32
Total Fixed Costs	574.07	567.60	477.82
Net Margin	(-)230.03	(-)66.58	200.35
Annual herd maintenance cost pence per kg calf produced	22	19	13
Variable cost – pence per kg calf sold	140	126	99
Fixed cost – pence per kg calf sold	126	117	76
Unpaid family labour hours	6 hrs	8 hrs 40 mins	8 hrs 50 mins

Figures may not tally due to rounding

Rearer finisher herds - technical performance measures

	Bottom Third	Average	Top Third
Cows pwe bull	27	25	22
Calves born dead or alive per 100 cows	88	92	98
Calves born dead per 100 cows	4	3	2
Calves died before weaning per 100 cows	4	3	3
Calves reared per 100 cows	80	86	93
Daily liveweight gain (kg)	0.75	0.81	0.89
Weight - kg per calf sold finished	621	606	629
Weight reared kg per cow per year	494	518	609
Cow replacement rate per 100 cows	17.5	17	15
Cow mortality %	4.8	3.5	2.5
Purchased concentrates kg per cow	360	448	562
Home-grown concentrates kg per cow	1040	925	1143
Stocking rate GLU/ha	0.65	0.79	1.11
Selling price p/kg dwt finished	358	375	386
Selling price p/kg lwt store	0	198	198

Figures may not tally due to rounding





Cattle finishing

Results from cereal-based cattle finishing enterprises

Fifteen cereal-based cattle finishing enterprises were surveyed. They sold 1,100 cattle and achieved an average gross margin of £225 per animal. The average net margin among those surveyed was positive, at £126 per head, and ranged from (-)£111 to £456 per head. Twelve businesses (80%) reported a positive net margin.

- Enterprises in the top third of those surveyed had the shortest feeding period, 238 days, although this was only nine days less than the average. They sold the lightest cattle, but achieved the best daily liveweight gains. Although they paid 1p/kg lwt more for their store cattle, they achieved a selling price some 32 p/kg lwt better than the average. Eighty two per cent of the cattle finished among the top third were young bulls and 18% heifers, no steers were sold. Those in the bottom third had the longest feeding period and the greatest proportion of steers (69%) in their sales mix but the lowest proportion of young bulls (12%).
- Those in the top third, despite the shortest feeding period, had the greatest dependence on home-grown cereals but also the greatest use of concentrates and grains in total, some 125kg per head more than the average. In contrast those in the bottom third used the least concentrate feed achieved the lowest daily liveweight gains and highest mortality rates. Nearly ninety per cent of the concentrate feed used by top-third producers was derived from home-grown cereals while among the bottom third this fell to 75%.
- However, although those in the top third used more concentrates, they used less roughage and forage and spent less on animal health. As a consequence, they achieved their higher output with £6 less expenditure on variable costs.
- Top third producers also had strict control on fixed costs, spending £15 per head less through a combination of lower paid labour charges and savings in machinery, depreciation charges and administration charges. They did however have greater dependence on unpaid labour.

Cereal based cattle finishing enterprises - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	5	15	5
Average herd size (head)	92	101	71
		£ per head	
Stock Sales	1193.66	1345.38	1474.03
Less stock purchases	772.06	752.72	735.34
Net Output	421.59	592.66	738.69
Variable Costs			
Purchased concentrates	86.81	92.57	64.49
Home-grown concentrates	170.70	166.41	212.33
Other Feeds	44.03	25.42	11.13
Forage	6.03	7.15	1.07
<i>Total Feed and Forage</i>	<i>307.58</i>	<i>291.55</i>	<i>289.02</i>
Veterinary	13.47	15.29	12.54
Bedding	24.58	27.86	36.22
Other costs	43.68	32.32	23.38
Total Variable Costs	389.30	367.02	361.16
Gross Margin	32.29	225.64	377.54
Fixed Costs			
Labour	27.26	21.18	13.24
Contractors	9.91	10.46	13.08
Power and machinery	20.94	21.89	19.44
Property maintenance and rent	15.14	15.78	17.39
Depreciation	17.95	14.52	9.94
Finance	6.95	7.24	6.33
Administration	12.09	8.57	5.49
Total Fixed Costs	109.89	99.63	84.91
Net Margin	(-)77.60	126.01	292.62
Stores purchased – pence per kg lwt sold	119	117	116
Variable cost – pence per lwt sold	60	57	57
Fixed cost – pence per kg calf produced	17	16	13
Unpaid family labour hours	35 mins	40 mins	1 hr 30 mins

Totals may not add up exactly due to rounding

Cereal based cattle finishing enterprises - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	249	247	238
Start weight (kg lwt)	321	309	301
Finish weight (kg lwt)	650	641	632
Daily liveweight gain (kg)	1.32	1.34	1.39
Mortality (%)	1.4	1	1
Purchased concentrates kg/head	350	452	219
Home-grown concentrates kg/head	1156	1138	1495
Purchase price (£ per kg lwt)	2.37	2.40	2.41
Purchased concentrates kg/head	3.44	3.70	4.02
Sales			
Steers % of sales	69	27	0
Liveweight at sale	658	658	0
Steer selling price p/kg dwt	349	350	0
Heifers % of sales	18	37	18
Liveweight at sale	574	586	551
Heifer selling price p/kg dwt	332	366	405
Young bulls % of sales	12	36	82
Liveweight at sale	719	658	649
Young bull selling price p/kg dwt	332	388	401

Results from forage-based cattle finishing enterprises

This year the forage-based finishers surveyed have been split into two groups, based on the age at which the majority of the cattle have been sold. The average age at which Scottish prime cattle are slaughtered is 22 months of age. This has been taken as the age for splitting the businesses surveyed. Thus the two groups are those selling finished cattle at under 22 months of age and those selling finished cattle at over 22 months of age.

The first group, selling younger cattle, comprises 18 businesses finishing an average of 75 cattle and the second group, selling older cattle, comprises 17 businesses but with a significantly larger average size of 96 cattle.

- Those selling younger cattle reported a gross margin of £203 per animal sold falling to a net margin of (-)£47 per animal sold; one third of businesses in this group achieved a positive net margin. Their counterparts selling older cattle reported a gross margin of £193 per head and a net margin of (-)£12; 47 per cent of businesses in this group achieved a positive net margin.

- Both groups bought similar cattle, although those selling older cattle had a higher proportion of steers in their mix - resulting in start weights 16kg (5%) heavier. However, the average cost of these stores was 10% higher. Not surprisingly, those keeping cattle to an older age sold much heavier cattle, some 70 kg heavier; however, their daily liveweight gains were very similar. Mortality rates were slightly higher among those selling younger cattle. Those selling younger cattle used larger quantities of concentrate than their counterparts selling older cattle. Selling price per kilogramme was higher among those selling younger cattle. The balance of these differences was that the net output among the older age group was 7% lower than those selling younger cattle.
- Those selling older cattle had variable costs £29 per head lower than those selling younger cattle. The reduced costs were due to lower vet costs and lower bedding and sundry costs. Total feed cost was little different. Nevertheless, because of the lower net output, those selling older cattle achieved a gross margin £10 per head below their counterparts selling cattle under 22 months of age.
- However, because of lower fixed costs among the older age group this group – despite reporting a negative net margin; did report a margin of £35 per head better than the younger age group.
- Among those selling younger cattle, the best margins were achieved by businesses achieving the highest price per kg for prime stock and the heaviest weights. They also had a higher proportion of steers in their sale mix, bought the smallest animals, grew them more slowly and used less concentrate feed. Veterinary and bedding costs were much higher among the top third. They also had much higher fixed costs reflecting a lower use of contractors but a greater investment in paid labour, machinery and property costs.
- Among those selling older cattle, the best margins were once again characterised by the highest selling price, lowest purchase price and longest feeding period. However, among this group the top-third added the most weight per animal, achieved the best growth weights and sold the heaviest cattle. Although the top third did achieve positive net margins, they also carried higher fixed costs than the average. This was largely due to higher machinery and depreciation charges, suggesting a greater capital investment in business infrastructure.

Forage based cattle finishing under 22 months - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	18	6
Average herd size (head)	68	75	96
		£ per cow	
Stock Sales	1149.49	1236.62	1277.43
Less stock purchases	706.11	658.58	589.58
Net Output	443.39	578.04	687.85
Variable Costs			
Purchased concentrates	160.34	139.45	129.22
Home-grown concentrates	74.61	72.76	62.20
Other Feeds	19.98	29.88	34.15
Forage	42.09	39.81	41.71
<i>Total Feed and Forage</i>	<i>297.02</i>	<i>281.90</i>	<i>267.29</i>
Veterinary	16.22	18.35	22.09
Bedding	17.37	32.64	46.83
Other costs	52.73	41.76	41.59
Total Variable Costs	383.33	374.64	377.80
Gross Margin	60.05	203.40	310.05
Fixed Costs			
Labour	24.17	35.22	46.58
Contractors	32.71	24.08	15.35
Power and machinery	46.68	61.18	68.81
Property maintenance and rent	55.60	53.15	61.02
Depreciation	51.99	54.59	62.65
Finance	8.51	10.28	7.49
Administration	12.36	12.76	9.40
Total Fixed Costs	232.08	251.28	271.31
Net Margin	(-)171.98	(-)47.88	38.74
Stores purchased – pence per kg lwt sold	125	115	102
Variable cost – pence per lwt sold	68	66	66
Fixed cost – pence per kg calf produced	41	44	47
Unpaid family labour hours	2 hrs 30 mins	2 hrs 25 mins	2 hrs mins

Figures may not tally due to rounding

Forage based cattle finishing under 22 months - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	299	318	376
Start weight (kg lwt)	297	300	284
Finish weight (kg lwt)	565	570	576
Daily liveweight gain (kg)	0.89	0.85	0.77
Mortality (%)	1.2	0.8	Neg
Purchased concentrates kg/head	714	565	507
Home-grown concentrates kg/head	512	502	410
Purchase Price (£ per kg lwt)	235	218	207
Purchased concentrates kg/head	355	379	390
Sales			
Steers % of sales	31	46	55
Liveweight at sale	593	588	597
Steer selling price p/kg dwt	367	383	386
Heifers % of sales	69	54	45
Liveweight at sale	552	542	550
Heifer selling price p/kg dwt	350	375	395
Young bulls % of sales	0	0	0
Liveweight at sale	0	0	0
Young bull selling price p/kg dwt	0	0	0



Forage based cattle finishing over 22 months - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	6	17	6
Average herd size (head)	141	96	80
		£ per head	
Stock Sales	1132.07	1266.85	1470.80
Less stock purchases	745.64	727.19	766.33
Net Output	386.43	539.66	704.47
Variable Costs			
Purchased concentrates	158.96	115.41	35.39
Home-grown concentrates	23.68	75.25	114.27
Other Feeds	29.90	29.00	28.40
Forage	45.20	63.81	87.27
<i>Total Feed and Forage</i>	<i>257.74</i>	<i>283.47</i>	<i>265.32</i>
Veterinary	10.73	10.89	6.27
Bedding	9.77	21.06	30.56
Other costs	22.60	30.38	37.99
Total Variable Costs	300.83	345.80	340.14
Gross Margin	85.60	193.87	364.33
Fixed Costs			
Labour	24.08	35.83	36.01
Contractors	23.33	21.98	17.57
Power and machinery	28.87	41.87	47.31
Property maintenance and rent	20.73	32.59	30.61
Depreciation	28.97	49.16	68.56
Finance	6.18	9.60	14.77
Administration	13.47	14.97	16.85
Total Fixed Costs	145.63	206.02	231.69
Net Margin	(-)60.03	(-)12.15	132.64
Stores purchased – pence per kg lwt sold	128	114	111
Variable cost – pence per lwt sold	52	54	49
Fixed cost – pence per kg calf produced	25	32	34
Unpaid family labour hours	3 hrs 45 mins	3 hrs	2 hrs 5 mins

Figures may not tally due to rounding

Forage based cattle finishing over 22 months - technical performance measures

	Bottom Third	Average	Top Third
Feeding period (days)	345	406	420
Start weight (kg lwt)	317	316	331
Finish weight (kg lwt)	583	640	690
Daily liveweight gain (kg)	0.77	0.80	0.85
Mortality (%)	0.6	0.5	Neg
Purchased concentrates kg/head	655	480	157
Home-grown concentrates kg/head	160	499	735
Purchase Price (£ per kg lwt)	233	228	225
Purchased concentrates kg/head	335	348	364
Sales			
Steers % of sales	92	76	46
Liveweight at sale	585	638	743
Steer selling price p/kg dwt	334	347	364
Heifers % of sales	8	24	53
Liveweight at sale	553	622	644
Heifer selling price p/kg dwt	350	361	364
Young bulls % of sales	0	Neg	1
Liveweight at sale	0	690	690
Young bull selling price p/kg dwt	0	351	351



SHEEP ENTERPRISES



Results from LFA hill ewe flocks

This group of enterprises comprises purebred Blackface and Cheviot flocks farmed on some of the most disadvantaged land in Scotland. The sample covered 29 such flocks, farming a total of over 19,800 ewes. These flocks are characterised by low lambing percentages, averaging 88% lambs reared - within a range of less than 60% to over 120%. The average gross margin achieved across this group was £16 per ewe, while the average net margin was (-)£23 per ewe within a range of (-)£55 to £7 per ewe. Three producers (10%) within this group made a small positive net margin.

- Producers in the top third benefit from better technical performance. The improvement in gross margin per ewe of £20 over the average is largely due to:
 - a higher number of lambs reared – 22 more lambs per 100 ewes than average
 - a higher proportion sold finished – 27% compared to an average of 14% – and a higher proportion sold for breeding
 - which in turn resulted in 24% more lamb produced per ewe; and a net output £28 per head higher than the average.
- Bottom-third producers achieved a gross margin of (-)£1 per ewe, £17 lower than the average and a net margin of (-)£32 per ewe, £10 worse than the average. However, it must be recognised that the bottom third contains all the businesses in the survey from the North West Highlands and Islands region and also flocks in the Grampians and South Lanarkshire where climate and topography have a severe impact on ewe performance and the ability of producers to sell anything other than store lambs. This is reflected in a lamb reared percentage of 69% and only six lambs per 100 ewes sold finished among the businesses in the bottom third.
- Variable costs among the top-third producers were £7 per ewe higher than the average due to higher purchased concentrate and veterinary costs but lower other feed costs. Those in the bottom third had variable costs £3 per ewe lower than the average through lower expenditure on feed and veterinary expenses, off-set to a degree by higher forage and other feed costs.
- Top-third producers carried more fixed costs, particularly those associated with labour, power and machinery and property. However, higher output among the top third outweighed the extra fixed costs and variable costs compared to the average, but failed to be sufficient to lead to positive net margins.
- In sharp contrast, the challenges of low productivity – despite savings in fixed and variable costs compared to the average – were amply illustrated by the negative gross and net margins reported among the bottom third of producers. Bottom third producers suffered considerably from lower lamb sales. Gross output for bottom third producers was almost two-thirds of the average and, despite having a lower cost base per ewe, this cost base was insufficient to offset the lower output and return from the market place.

LFA hill ewe flocks - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	10	29	10
Flock size	743	685	603
	£ per ewe		
Lamb sales	33.11	52.53	82.82
Wool	2.11	2.28	2.19
Gross Output	35.22	54.81	85.01
Less replacement costs	14.18	13.19	15.29
Net Output	21.04	41.62	69.72
Variable Costs			
Purchased concentrates	5.15	7.72	12.20
Home-grown concentrates	0.46	0.19	0.04
Other feeds	2.50	2.32	1.33
Forage	4.09	3.38	3.28
<i>Total feed and forage</i>	<i>12.20</i>	<i>13.61</i>	<i>16.86</i>
Veterinary	4.87	6.24	8.60
Bedding	0.02	0.12	0.33
Other costs	5.27	5.61	7.27
Total Variable Costs	22.35	25.59	33.06
Gross Margin	(-)1.31	16.03	36.66
Fixed Costs			
Labour	5.54	12.81	15.55
Contractors	4.41	3.07	2.94
Power and machinery	6.75	7.62	8.83
Property maintenance and rent	4.20	6.05	8.84
Depreciation	5.42	4.40	5.19
Finance	0.21	0.72	1.38
Administration	4.59	4.03	4.50
Total Fixed Costs	31.13	38.70	47.23
Net Margin	(-)32.43	(-)22.67	(-)10.58
Flock replacements - pence per kg lamb produced	67	46	43
Variable cost - pence per kg lamb produced	107	90	94
Fixed cost - pence per kg lamb produced	148	136	134
Unpaid family labour hours	40 mins	30 mins	27 mins

Figures may not tally due to rounding

LFA hill ewe flocks - technical performance

	Bottom Third	Average	Top Third
Ewes per ram	35	36	43
Ewe replacement rate %	30.2	25.8	28.9
Lambs born dead or alive per 100 ewes	90	107	126
Lamb mortality %	22	19	16
Lambs reared per 100 ewes	69	88	110
Average weight of lambs kg	30.4	32.3	32.2
Weight of lamb produced per 100 ewes kg	21	28.5	35.3
Purchased concentrates kg/ewe	19	28	44
Home-grown concentrates kg/ewe	1.3	0.6	0.3
Lambs sold finished per 100 ewes	6	14	27
Value per lamb £/head	39.85	63.29	73.89
Lambs sold/transferred store per 100 ewes	37	40	38
Value per lamb £/head	45.87	45.38	47.91
Lambs sold/transferred for breeding per 100 ewes	26	34	44
Value per lamb £/head	53.11	74.10	100.05



Results from LFA upland ewe flocks

LFA upland breeding flocks are identified as LFA farms running crossbred flocks. Thirty-one such flocks were recorded in this survey, collectively farming some 18,800 ewes. These enterprises achieved an average gross margin of £50 per ewe and average net margin of (-)£3 per ewe. Forty-five per cent of the businesses surveyed returned a positive net margin, a deterioration from last year's survey when 80% of upland flocks achieved a positive net margin per ewe. The range of net margins reported was (-)£54 to £46 per ewe.

- Producers in the top third produced a gross margin of £79 per ewe, 58% better than the average and two and a half times better than the bottom third.
- Almost all of this improvement in gross margin among the top third came from higher returns from the marketplace, although variable costs were £2 per ewe less than the average. Fixed costs per ewe were also £2 per ewe lower than the average. Higher output was achieved through improved flock performance including:
 - 12 more lambs reared per 100 ewes than the average
 - 2.3 kg higher lamb sale weights plus the highest proportion of prime lambs sold (81% of lambs compared to 65% on average); resulting in
 - 15% more liveweight of lamb produced per ewe than the average
 - higher sale prices across all classes of stock.
- In contrast, bottom third producers achieved:
 - 15 fewer lambs reared per 100 ewes than the average
 - 14% less liveweight lamb produced per ewe than the average.
- Despite higher output those amongst the top third, this was achieved with lower variable costs across all categories except bedding. In contrast, those in the bottom third carried higher variable costs per ewe than those in the top third – while not getting any gain in output.
- Those in the top third also carried lower fixed, or overhead, costs than the average, but not as low as those in the bottom third of financial performance. Those in the top third did, however, carry the highest finance and business administration costs.

LFA upland ewe flocks - financial performance measures

	Bottom Third	Average	Top Third
Number in sample	10	31	10
Flock size	735	606	618
	£ per ewe		
Lamb sales	89.06	104.21	125.26
Wool	2.38	2.68	2.80
Gross Output	91.44	106.89	128.05
Less replacement costs	14.62	14.34	10.36
Net Output	76.81	92.55	117.69
Variable Costs			
Purchased concentrates	15.50	14.60	13.50
Home-grown concentrates	1.36	0.65	0.37
Other feeds	3.87	2.92	2.17
Forage	9.26	8.20	7.47
<i>Total feed and forage</i>	<i>29.99</i>	<i>26.38</i>	<i>23.52</i>
Veterinary	7.94	7.50	6.72
Bedding	0.58	0.80	1.29
Other costs	8.78	7.38	6.92
Total Variable Costs	47.28	42.06	38.46
Gross Margin	29.53	50.49	79.24
Fixed Costs			
Labour	13.90	12.65	10.76
Contractors	3.70	4.41	3.83
Power and machinery	11.31	11.43	11.03
Property maintenance and rent	8.57	9.48	9.65
Depreciation	8.44	9.01	7.59
Finance	1.46	2.76	3.58
Administration	1.94	3.34	4.37
Total Fixed Costs	49.33	53.08	50.81
Net Margin	(-)19.80	(-)2.59	28.43
Flock replacements - pence per kg lamb produced	29	26	16
Variable cost – pence per kg lamb produced	95	75	59
Fixed cost – pence per kg lamb produced	99	94	78
Unpaid family labour hours	1 hr	1 hr	50 mins

Figures may not tally due to rounding

LFA upland ewe flocks - technical performance

	Bottom Third	Average	Top Third
Ewes per ram	26	32	40
Ewe replacement rate %	24.5	24.7	23.5
Lambs born dead or alive per 100 ewes	144	159	170
Lamb mortality %	16	16	15
Lambs reared per 100 ewes	128	143	155
Average weight of lambs kg	38.7	39.2	41.5
Weight of lamb produced per 100 ewes kg	49.8	56.2	64.7
Purchased concentrates kg/ewe	57	60	56
Home-grown concentrates kg/ewe	9	5	3
Lambs sold finished per 100 ewes	92	93	125
Value per lamb £/head	70.25	75.76	79.45
Lambs sold/transferred store per 100 ewes	24	30	4
Value per lamb £/head	61.47	58.95	53.81
Lambs sold/transferred for breeding per 100 ewes	12	20	26
Value per lamb £/head	81.33	80.80	89.34

Results from lowground breeding flocks

The twelve businesses in the survey farmed in total some 7,000 ewes. The small sample size means that it is not sufficiently large to make sensible comparisons between the top and bottom third of businesses.

- All but two flocks in this group achieved a positive net margin, the same as last year, with the average being £26 per ewe within a range from (-)£20 to £38 per ewe.
- Better financial returns tend to be associated with high physical performance, with those at the top of financial returns having the highest lamb weaned percentages giving highest weight of lamb produced per ewe, but also having the highest proportion of prime lamb sales. The converse is true among those with lower financial margins.
- Those with the better financial performance do, however, have the highest cost structure - with notably higher costs for concentrate feed and paid labour. However, the higher cost is off-set by better physical performance and return from the marketplace.

Lowground ewe flocks - financial performance measures

	Average
Number in sample	12
Flock size	585
	£ per ewe
Lamb sales	138.50
Wool	2.67
Gross Output	141.16
Less replacement costs	14.30
Net Output	126.86
Variable Costs	
Purchased concentrates	21.82
Home-grown concentrates	4.23
Other feeds	3.06
Forage	8.64
<i>Total feed and forage</i>	<i>37.74</i>
Veterinary	10.26
Bedding	0.78
Other costs	8.01
Total Variable Costs	56.79
Gross Margin	70.07
Fixed Costs	
Labour	9.74
Contractors	3.34
Power and machinery	6.75
Property maintenance and rent	12.67
Depreciation	7.15
Finance	1.12
Administration	2.48
Total Fixed Costs	43.28
Net Margin	26.79
Flock replacements - pence per kg lamb produced	20
Variable cost - pence per kg lamb produced	78
Fixed cost - pence per kg lamb produced	59
Unpaid family labour hours	45 mins

Figures may not tally due to rounding

Lowground ewe flocks - technical performance

	Average
Ewes per ram	34
Ewes replacement rate %	18.5
Lambs born dead or alive per 100 ewes	177
Lambs mortality per 100 ewes	16
Lambs reared per 100 ewes	161
Average weight of lambs kg	45.5
Weight of lamb produced per 100 ewes kg	73.1
Purchased concentrates kg/ewe	79
Home-grown concentrates kg/ewe	26
Lambs sold finished per 100 ewes	131
Value per lamb £/head	89.78
Lambs sold/transferred store per 100 ewes	6
Value per lamb £/head	70.42
Lambs sold/transferred for breeding per 100 ewes	24
Value per lamb £/head	68.86

Results from store lamb finishing enterprises

Fourteen store lamb finishing businesses, selling in total almost 10,000 lambs, achieved an average gross margin of £8 per lamb. Net margins averaged £3.70 per lamb in a range from (-) £4.50 to £16 per lamb with nearly 80% of those surveyed achieving a positive net margin. The size of the group was insufficient to make robust comparisons between top and bottom-third performance.

- The average finishing period was 102 days within a range of 30 days to 138 days, with the average finisher adding some 7.5kg to their lambs' purchase weight of 33.5kg.
- Average mortality among the group was 1.7%, within a range from 0% to 4.7%.
- Those with better financial returns tended to have a slightly longer feeding period but sold slightly smaller lambs than the group average thus accepting lower growth rates than the average - but at the best price per kilogram.
- The more significant difference was that those with the better financial performance used considerably less purchased feed but had higher forage costs than the average. Overall, their feed and forage costs were lower than the average, as were their veterinary costs.
- In contrast, those at the lower end of financial performance – despite having the highest market return per lamb, from the heaviest lambs – had much higher purchased feed and veterinary cost, although they also had the lowest mortality rates.

Store lamb finishing - financial performance measures

	Average
Number in sample	14
Flock size	711
	£ per lamb
Lamb Sales	74.54
Less purchases	52.75
Net Output	21.80
Variable Costs	
Purchased concentrates	5.76
Home-grown concentrates	0.16
Other feeds	0.22
Forage	2.13
Total feed and forage	8.27
Veterinary	1.63
Bedding	0.10
Other costs	3.69
Total Variable Costs	13.69
Gross Margin	8.11
Fixed Costs	
Labour	1.00
Contractors	0.56
Power and machinery	0.92
Property maintenance and rent	0.88
Depreciation	0.58
Finance	0.32
Administration	0.16
Total Fixed Costs	4.43
Net Margin	3.68
Lambs purchased - pence per kg lwt lamb sold	128
Variable cost – pence per kg lwt lamb sold	33
Fixed cost - pence per kg lwt lamb sold	11
Unpaid family labour hours	8 mins

Store lamb finishing - technical performance

	Average
Weight of lamb purchased kg	33.5
Liveweight of lamb sold	41.1
Carcase weight of lamb sold	19.3
Sale price p/kg dwt	390
Daily liveweight gain	0.07
Finishing period – days	102
Mortality %	1.7
Purchased concentrates kg/lamb	22
Home-grown concentrates kg/lamb	1



COMPARISONS

IMPROVING RETURNS THROUGH QUALITY

Beef

The quality of the stock presented to the market and its value to processors through improved meat yield, or less carcase trimming, will be reflected in market prices. For example, in 2013 the average price paid for a –U3 steer exceeded that of an R4L steer by 1.1p/kg dwt, while for heifers this differential was higher at 5.1p/kg dwt. An improvement in carcase quality from O+4H to R4L was worth 3.6p/kg dwt to producers for steers and 5.9p/kg dwt for heifers during 2013.

Compared to 2012, the premium for a leaner steer with better conformation (-U3) more than halved from 2.7p/kg. In addition, the premium between the benchmark R4L grading and the fatter O+4H grade steer with poorer conformation also narrowed significantly from 6.6p/kg in 2012. This is likely to have been driven by a tighter supply of steers. By contrast, the differentials for heifers were unchanged, as the annual heifer kill increased at Scottish abattoirs. As prime cattle supplies have improved during 2014, price differentials between grades have widened considerably for both steers and heifers.

Using the average carcase weights of steers and heifers slaughtered in Scottish abattoirs during 2011, 2012 and 2013, a comparison can be made between the average carcase values of the differently graded animals and this is summarised in the table below:

	Average -U3 premium over R4L (£/head)			Average R4L premium over O+4H (£/head)		
	2011	2012	2013	2011	2012	2013
Steer	11	10	4	31	25	14
Heifer	17	17	17	27	19	19

Lamb

As is the case for beef, there is a financial reward from the marketplace, where a lamb carcase meets an improved conformation and fat level. The average premium in Great Britain at price-reporting abattoirs for a carcase achieving a grade of U2 over a carcase with an R3L grading was 11.2p/kg dwt during 2013, up 2p/kg from the previous year. The average extra price paid for an R3L carcase over an O3H lamb widened significantly for a second year. It reached 18.4p/kg in 2013 compared with 13.9p/kg in 2012 and 8.9p/kg in 2011.

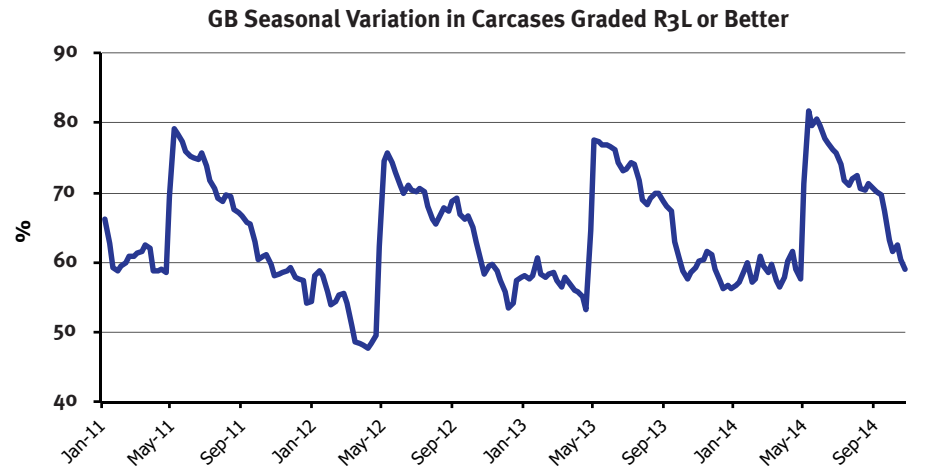
During 2013, the average carcase weight of a lamb killed at a Scottish abattoir was nearly 20kg. Consequently, a lamb that achieved a U2 grade was worth, on average, £2.20 per carcase more than a lamb graded at R3L. Lambs graded at R3L were worth £3.70 more than those achieving an O3H grade. In 2012, these premiums stood at £1.84 and £2.78 respectively. The premium for an R3L lamb over an O3H lamb carcase widened by nearly a pound for a second year; in 2011 it had been £1.82.

Over the first three quarters of 2014, the price differential between U2 and an R3L has widened by just over 2p, but the premium for an R3L lamb carcase over an O3H has narrowed slightly to 17p/kg.

	Average U2 premium over R3L (£/head)			Average R3L premium over O3H (£/head)		
	2011	2012	2013	2011	2012	2013
Lambs	2.03	1.84	2.20	1.82	2.78	3.70

These figures are average variations across Great Britain, but individual processors will have different requirements, and hence different pricing structures, which may have led to deviation from these levels. Therefore, a good relationship between producer and buyer involving regular dialogue and feedback is very important.

The following chart illustrates the seasonality of lamb quality. As the new season began in 2013, 77% of lambs at GB price-reporting abattoirs achieved at least an R3L grading. Although an improvement on the previous year, this figure remained well below the peak of 82% back in May 2010. Nevertheless, the much better summer weather was evident in lamb quality in 2013. Indeed, a higher proportion of lambs achieved an R3L or better grade throughout the June to September period, generally by around 2–3 percentage points. However, as the marketing year progressed, lamb quality did slip behind year-earlier levels in October before recovering in November and December. Since the start of the 2014 marketing season, carcase quality has consistently run ahead of year-earlier levels. This will have been helped by beneficial weather conditions from the breeding period in late 2013 right through to the autumn of 2014.



ESTIMATION OF NON-CASH COST IN PRODUCING CATTLE AND SHEEP

The enterprise costings produced in this survey indicate the reward for the unpaid labour of those working with the herds and flocks and the reward for investing capital in an enterprise. A negative net margin indicates that there is no return for the labour and investment committed to an enterprise.

In this chapter, estimates are made of how much should be set against an enterprise if unpaid labour were to be charged for and if a return of 5% was required from the investment in livestock and running costs (but not buildings and land). The reward for investment in land and buildings can be considered to be the rental value of the land used by an enterprise. This analysis draws rental values from the Scottish Government RERAD 2014 report on tenanted land¹. This rental value gives a measure of the opportunity cost of the land used by beef and sheep enterprises.

The value of unpaid labour is estimated using the proportion of a man-year committed to the enterprise and an average value for an hour of work. Time committed by the average farmer is drawn from the survey data, with one man-year defined as 2,200 hours of annual work². One hour of labour has been valued at £14.30 – an increase of 1% on the year.

Cattle enterprises

	Unpaid labour	Return on working capital ³	Rent of land and buildings
	p/kg liveweight sold		
Hill suckler herds	71	22	36
Upland suckler herds selling calves at weaning	48	29	17
Upland suckler herds selling yearlings	34	23	19
Lowground suckler herds	43	23	36
Rearer finisher herds	24	21	22
Cereal based store finishing	2	8	2
Forage based store finishing <22 months old	6	8	5
Forage based store finishing >22 months old	7	8	6

¹ Tenanted Agricultural Land in Scotland 2013" Scottish Statistical Publication May2014

² 47 hour average week, assuming five weeks of leave

³ Return required to give a 5% return on working capital

Sheep enterprises

	Unpaid labour	Return on working capital	Rent of land and buildings
	p/kg liveweight sold		
Hill flocks	25	23	18
Upland flocks	25	12	10
Lowground non-LFA flocks	15	10	13
Store lamb finishers	5	7	2

Total cost of producing a kilogramme of beef or sheep meat

Adding together the value of non-cash costs and the running costs of an enterprise provides an indication of the total cost of producing a kilogramme of beef or sheep meat. However, before doing this all enterprises need to be brought to a common standard. Thus, finance charges and rents paid have been excluded from the fixed costs of the enterprises surveyed in making the following estimate. They have been replaced by the imputed value for return on working capital and rental value for the land used for the livestock enterprise.

The table on the following page summarises the cost of production for a kilogramme liveweight of beef or sheepmeat produced by the average performer among the enterprises covered by the survey.

	Repl cost	Var cost	Fixed cost	Non cash estimates			Total Cost	Selling price
				Labour	Working capital	Rental value		
	Pence per kg liveweight sold							
Sheep enterprises								
Store lambs	128	33	8	5	7	2	183	182
Hill ewe	46	90	106	25	23	18	308	184
Upland ewe	26	75	73	25	12	10	221	185
Lowland	20	78	40	15	10	13	176	189
Cattle enterprises								
Hill suckler	24	130	119	71	22	36	402	243
Upland selling at weaning	36	120	121	48	29	17	371	252
Upland selling yearlings	25	123	99	34	23	19	323	237
Non LFA suckler	32	105	106	43	23	36	345	241
Rearer finisher	19	126	84	24	21	22	296	222
Forage finisher <22 month	115	66	33	6	8	5	233	217
Forage finisher >22 month	114	54	26	7	8	6	215	199
Cereal finisher	117	57	12	2	8	2	198	210

Labour based on £14.30 per hour and 2,200 hours per man year (£31,460 employment cost per year)

Rental values based on values published in Scottish Government's Tenanted Agricultural land in Scotland 2013

Working capital charged at 5%

Fixed cost adjusted for property and finance paid.

COMPARISONS WITH 2011 AND 2012

The following tables summarise and compare the results from the 2013 calf and lamb crop with those of 2011 and 2012. Analysis is based on a comparison of the average from each of the three years surveyed and does not compare an identical sample.

Cattle Enterprises

Suckler herds

- All suckler herds showed some improvement in margins with the 2013 calf crop. Improvement was largely driven by higher market returns, in particular higher market prices, although the lowground herds and upland herds selling yearlings also saw some modest increase in sale weights.
- The poor spring weather in 2013 led to a significant increase in feed and veterinary costs, in particular, but increased revenue from the market place more than offset this increase – although timing of sales did have an impact. Fixed costs, in contrast, were less volatile, although they did increase by typically between 5 and 10% across these herds.

Cattle finishing

- Rearer finisher enterprises surveyed in 2013–2014 saw useful increases in calf output, with prime cattle prices increasing over the year as did sale weights. The difficult weather conditions from late 2012 through to the spring of 2013 had knock on effects on the cost of feed, forage and veterinary expenses. However, the improvement in market returns was greater than the increase in variable costs, and gross margins improved. Fixed costs also showed a significant increase, so that at net margin level herd financial performance was little changed from businesses surveyed in 2012–2013.
- Margins among store cattle finishers were heavily determined by timing of purchase and sale. On average, prime cattle prices were 13% higher in 2013 than in 2012, but the scale of improvement varied during the year from around 8% to almost 18%. Prime cattle sold in early 2014, however, were sold into a falling market. Meanwhile store cattle prices were little different in the first half of 2013, before increasing significantly in the second half of 2013.
- Intensive store cattle finishers with housed cattle, who fed a predominantly cereal diet, benefited most from these market price movements, selling slightly heavier cattle at better prices than last year leading to an improvement of more than 20% in net margins. In contrast, longer-keep, forage-based systems faced increased purchased feed costs and slower growth rates. As a consequence, they sold slightly lighter cattle at similar prices to last year's group, which led to little change in gross margin and a deterioration in net margins.

Sheep Enterprises

LFA Sheep

- Challenging weather conditions in some parts of the country during the lambing period impacted on flock performance, particularly among hill flocks, where lambs reared percentages were some 10 percentage points lower than last year. Upland flocks achieved a similar "lambs reared" percentage to last year, but still well below levels of two years ago. However, maintaining ewe performance came at a considerably increased feed and forage cost.
- Those who sold prime lamb, particularly those selling early in the season, benefited from strong market prices. Those selling in the late autumn saw little improvement in price, but late sales once again benefited from better prices. Consequently, lowground flocks saw significant improvement in market returns while upland flocks gained little from the marketplace. With upland flocks facing considerably increased feed costs the better market returns were overturned among upland flocks where the average net margin fell into negative territory.
- Hill flocks, with their lower lambing rates and greater dependence on the store lamb market, did not benefit from improved market returns and faced lower income from the marketplace. They saw some increase in feed costs, but not as marked as flocks elsewhere. Nevertheless, margins deteriorated significantly for this group of producers.

Lowground sheep

- Earlier-lambing lowground flocks, who had suffered badly in spring 2012, were less badly affected by the weather of early 2013 and saw some improvement in lamb rearing rates.
- The earlier-lambing lowground flocks also benefited from the strong early season prime lamb prices and better lamb growth rates than in 2012 and consequently saw an improved market income of over £40 per ewe. This improved market return, despite the considerable increase in feed cost, was sufficient to return considerable improvement in net margins – almost to the levels seen two years ago.

Lamb finishing

- The considerable improvement in prime lamb prices in late 2013 and early 2014 benefited store lamb finishers, as did slightly higher sale weights.
- Improved market returns were more than sufficient to offset the slightly higher store lamb purchase price and greater cost of forage crop production. Consequently, the average net margin returned to positive territory among the group.

Suckler herds

	Hill suckler herds			Lowland suckler herds		
	2011	2012	2013	2011	2012	2013
Number in sample	18	15	16	16	17	16
Avg. herd size (head)	75	57	60	60	82	86
	£ per cow					
Calf output including beef calf premium	675.90	605.67	687.46	630.14	568.79	716.25
Less replacements	41.83	49.76	61.01	72.87	70.20	89.32
Net Output	634.07	555.91	626.45	557.87	498.59	626.92
Variable Costs						
Total concentrates	156.14	127.25	126.01	52.71	43.42	47.30
Other Feeds	44.54	46.34	48.72	44.14	31.70	41.94
Forage	67.57	78.63	78.20	56.46	66.86	82.36
<i>Total Feed and Forage</i>	<i>268.25</i>	<i>252.22</i>	<i>252.93</i>	<i>153.31</i>	<i>141.98</i>	<i>171.60</i>
Veterinary	41.04	29.70	31.04	43.90	50.06	54.46
Bedding	27.51	11.57	18.13	42.44	41.81	43.08
Other costs	17.73	28.73	34.96	21.56	22.57	24.82
Total Variable Costs	354.53	322.22	337.05	261.20	256.42	290.95
Gross Margin	279.54	233.69	289.40	296.67	242.17	335.97
Fixed Costs	374.61	369.24	385.46	362.62	373.83	401.01
Net Margin	(-) 95.07	(-)135.55	(-) 96.06	(-) 65.95	(-) 131.66	(-) 68.04

	Hill herds			Lowland herds		
	2011	2012	2013	2011	2012	2013
Physical Performance						
Calves born alive per 100	93	94	95	90	91	90
Calves reared per 100	91	89	89	88	86	85
Daily liveweight gain (kg)	0.95	0.98	0.90	1.17	1.08	1.16
Return per calf (£ per head)	694	626	713	660	612	784
Calf price (£ per kg lwt)	2.11	2.10	2.43	1.91	2.00	2.41
Weight per calf (kg)	329	298	293	345	306	325

	Upland suckler herds Early weaning			Upland suckler herds Late weaning		
	2011	2012	2013	2011	2012	2013
Number in sample	32	31	33	28	30	27
Avg. herd size (head)	103	104	126	109	116	104
	£ per cow					
Calf output incl. Beef calf premium	588.04	564.07	681.61	726.63	742.74	837.13
Less replacements	66.91	71.96	92.18	64.22	78.69	83.03
Net Output	521.13	492.11	589.43	662.41	664.05	754.10
Variable Costs						
Total concentrates	62.62	47.64	46.22	89.03	118.33	146.38
Other Feeds	37.03	29.15	47.54	27.55	30.59	38.43
Forage	84.72	95.68	109.01	74.21	86.55	99.20
<i>Total Feed and Forage</i>	<i>184.38</i>	<i>172.47</i>	<i>202.76</i>	<i>190.79</i>	<i>235.47</i>	<i>284.01</i>
Veterinary	38.99	36.85	46.13	38.18	48.00	53.78
Bedding	18.77	21.84	29.96	26.94	37.49	39.01
Other costs	20.50	19.68	22.54	31.26	27.06	33.61
Total Variable Costs	262.64	250.84	301.39	287.16	348.03	410.41
Gross Margin	258.49	241.27	288.04	375.25	316.03	343.69
Fixed Costs	343.34	383.35	411.79	394.05	425.35	446.52
Net Margin	(-) 84.85	(-) 142.08	(-) 123.76	(-) 18.80	(-)109.32	(-)102.83

	Upland herds - Early weaning			Upland herds - Late weaning		
	2011	2012	2013	2011	2012	2013
Physical Performance						
Calves born alive per 100	91	92	93	89	92	91
Calves reared per 100	88	86	87	86	85	85
Daily liveweight gain (kg)	1.14	1.05	1.12	0.97	0.90	1.06
Return per calf (£ per head)	614	608	735	800	825	934
Calf price (£ per kg lwt)	1.96	2.06	2.52	2.12	2.17	2.38
Weight per calf (kg)	313	295	292	378	380	393

	Rearer/Finishers		
	2011	2012	2013
Number in sample	22	22	24
Average herd size (head)	96	95	117
	£ per cow		
Calf output incl. Beef calf premium	961.22	999.39	1198.71
Less replacements	44.71	75.96	90.18
Net Output	1005.93	923.44	1108.53
Variable Costs			
Total concentrates	213.91	218.17	237.71
Other Feeds	60.29	48.45	65.23
Forage	106.29	115.86	147.11
<i>Total Feed and Forage</i>	<i>381.12</i>	<i>382.49</i>	<i>450.05</i>
Veterinary	45.87	49.64	58.37
Bedding	52.87	52.16	53.60
Other costs	44.15	41.94	45.48
Total Variable Costs	524.00	526.24	607.50
Gross Margin	412.16	397.20	501.03
Fixed Costs	437.22	486.04	567.60
Net Margin	(-) 25.06	(-) 70.83	(-)66.58
Physical Performance			
Calves born dead or alive per 100	90	94	92
Calves reared per 100	88	88	86
Daily liveweight gain (kg)	0.91	0.83	0.81
Return per calf (£ per head)	1139	1183	1318
Sale price (pence per kg dwt)	330	352	375
Weight per calf (kg)	616	580	606

Businesses finishing cattle under cereal based and forage based systems

	Cereal based			Forage based		
	2011	2012	2013	2011	2012	2013
	£ per head					
Number in sample	15	15	15	35	36	35
Stock Sales	1086.09	1229.11	1345.38	1174.01	1250.91	1224.34
Less stock purchases	634.13	657.38	752.72	652.28	727.49	696.12
Net Output	451.96	571.73	592.66	521.73	523.42	528.22
Variable Costs						
Concentrates	223.76	263.34	258.98	175.72	193.07	200.42
Other Feeds	27.11	22.98	25.42	35.30	21.93	29.40
Forage	7.13	7.63	7.15	46.25	52.73	52.94
<i>Total Feed and Forage</i>	<i>258.01</i>	<i>293.95</i>	<i>291.55</i>	<i>257.26</i>	<i>267.74</i>	<i>282.76</i>
Veterinary	11.17	12.93	15.29	9.83	13.25	14.26
Bedding	30.69	30.69	27.86	31.03	32.23	26.30
Other Costs	23.24	35.10	32.32	33.51	39.49	35.53
Total Variable Costs	323.10	372.68	267.02	331.63	352.80	358.86
Gross Margin	128.86	199.05	225.64	190.09	170.62	169.36
Fixed Costs	72.33	92.02	99.63	176.51	198.95	226.51
Net Margin	56.52	107.03	126.01	13.58	(-)28.33	(-)57.15
Physical Performance						
Feeding period (days)	217	243	247	333	368	360
Start Wt (kg lwt)	340	289	309	358	355	309
Average carcass weight (kg dwt)	343	353	371	345	377	351
Daily LWT gain (kg)	1.2	1.3	1.3	0.77	0.81	0.79
Mortality (%)	0	0.1	1	0.1	0.4	0.4
Sale price (£ per kg dwt)	3.17	3.51	3.70	3.39	3.64	3.63
Purchase price (£ per kg lwt)	1.86	2.27	2.40	1.83	2.18	2.24
Gross Margin per day (£ per day of feeding period)	0.59	0.82	0.91	0.57	0.46	0.47

Results from LFA sheep flocks

	LFA Upland Sheep Flocks			LFA Hill Sheep Flocks		
	2011	2012	2013	2011	2012	2013
	£ per ewe					
Number in Sample	33	32	31	21	26	29
Lamb Sales	118.73	103.46	104.21	64.85	59.48	52.53
Wool	2.95	3.50	2.68	2.24	2.38	2.28
Gross Output	121.68	103.69	106.89	67.08	61.86	54.81
less replacement costs	11.03	11.93	14.34	10.21	11.34	13.19
Net Output	110.65	95.03	92.55	56.88	50.52	41.62
Variable Costs						
Concentrates	9.85	12.26	15.11	7.38	6.89	7.91
Forage cost	6.33	7.71	8.20	2.72	3.78	3.38
Roughages	1.79	1.55	2.92	1.09	1.90	2.32
<i>Total feed and forage</i>	<i>17.98</i>	<i>21.52</i>	<i>26.38</i>	<i>11.19</i>	<i>12.57</i>	<i>13.61</i>
Bedding	0.89	0.64	0.80	0.18	0.14	0.12
Veterinary	7.24	7.62	7.50	5.93	6.21	6.24
Other costs	7.06	6.40	7.38	6.28	5.51	5.61
Total Variable Costs	33.17	36.17	42.06	23.58	24.43	25.59
Gross Margin	77.48	58.86	50.49	33.30	26.09	16.03
Fixed Costs	46.66	45.60	53.08	36.52	38.55	38.70
Net Margin	30.82	13.26	(-)2.59	(-) 3.22	(-) 12.77	(-)22.67
Physical Performance						
	LFA Upland Sheep Flocks			LFA Hill Sheep Flocks		
Average no. ewes	566	616	606	605	706	685
Lambs born/100 ewes	168	159	159	111	116	107
Lambs died/100 ewes	15	16	16	11	17	19
Lambs reared/100 ewes	153	143	143	100	99	88
Lambs sold/retained:						
Slaughter %	62	64	65	31	26	16
Stores %	22	19	21	33	40	46
Breeding %	16	17	14	36	34	38
Return per lamb sold finished (£)	78.75	71.99	75.76	72.33	63.46	63.29
Carcass weight lambs sold finished (kg)	19.9	19.6	19.6	18.1	19.8	17.1
Return per lamb sold store (£)	67.00	64.40	58.95	48.90	42.79	45.38

Results from Lowground sheep flocks

	2011	2012	2013
		£ per ewe	
Number in Sample	12	12	12
Lamb Sales	119.01	96.03	138.50
Wool	2.52	2.97	2.67
Gross Output	121.52	99.00	141.16
Less replacement costs	12.60	12.41	14.30
Net Output	108.93	86.59	126.86
Variable Costs			
Concentrates	9.63	9.07	26.05
Forage cost	4.44	6.71	8.64
Roughages	3.05	1.34	3.06
<i>Total feed and forage</i>	<i>17.12</i>	<i>17.10</i>	<i>37.74</i>
Bedding	1.57	1.19	0.78
Veterinary	7.08	5.97	10.26
Other costs	8.33	7.53	8.01
Total Variable Costs	34.10	31.79	56.79
Gross Margin	74.83	54.80	70.07
Fixed Costs	46.74	46.03	43.28
Net Margin	28.09	8.77	26.79
Physical Performance			
Average no. ewes	382	348	585
Lambs born per 100 ewes	170	150	177
Lambs died per 100 ewes	24	16	16
Lambs reared per 100 ewes	146	134	161
Lambs sold/retained:			
Slaughter %	82	64	81
Stores %	4	21	4
Breeding %	14	15	15
Return per lamb sold finished (£)	79.39	73.76	89.78
Carcase weight lambs sold finished (kg)	20.3	17.5	21.9
Return per lamb sold store (£)	74.97	36.43	70.42

Store lamb finishing

	2011	2012	2013
		£ per lamb	
Number in sample	12	13	14
Lamb Sales	75.45	64.99	74.74
Less store lamb purchase costs	54.62	51.38	52.75
Output	20.83	13.61	21.80
Concentrates	2.24	5.85	5.92
Other feed	0.12	0.18	0.22
Forage	1.78	0.93	2.13
<i>Total feed and forage</i>	<i>4.15</i>	<i>6.97</i>	<i>8.27</i>
Bedding	0.01	0.14	0.10
Veterinary	0.90	0.77	1.63
Other costs	3.89	4.57	3.69
Total Variable Costs	8.95	12.45	13.69
Gross Margin	11.88	1.15	8.11
Fixed Costs	5.40	4.64	4.43
Net Margin	6.48	(-) 3.49	3.68
Physical Performance			
Feeding period (days)	102	100	102
Liveweight at start (kg)	30.5	32.6	33.5
Liveweight at finish (kg)	39.1	39.5	41.1
Mortality (%)	2.5	2	1.7
Concentrates (kg)	10	21	22
Average carcase weight (kg dwt)	18.4	18.6	19.3

GLOSSARY

Output: Income to the enterprise after deducting the cost of maintaining the breeding flock or purchasing store livestock and after valuation changes.

Variable Costs: Costs which vary directly with the size of production of the enterprise and which can be easily allocated to an enterprise.

Gross Margin: The surplus income left over after deducting variable costs from output. It is the contribution of the enterprise towards covering the farmer's fixed costs and overheads, rewarding the owner of the business for their work and capital investment.

Fixed Costs: Costs reflecting the overall running of the business, but cannot be easily allocated to an enterprise because in many cases they are shared costs. In this analysis they have been broken down into the following categories:

Labour costs: All paid labour including regular wages, contract labour and casual wages.

Contract: All contract labour and contractor services.

Power & machinery: Machinery repairs; fuel; electricity; hire charges; tax and insurance.

Property maintenance & rent: Farm and property repairs; council taxes and water charges; rent and grazing lets.

Depreciation: Machinery and property depreciation charges

Finance: Bank and loan interest and charges

Administration: Insurance; professional fees; miscellaneous expenses.

Net Margin: The surplus income left after deducting all costs from the output. It is the contribution the enterprise makes to cover the cost of unpaid family labour and to reward the owner for their investment in the enterprise.

Working Capital: The sum of money tied up in productive livestock and the average capital needed to finance the annual costs of running the business; the latter estimated to be half of the total variable and fixed costs for the year.



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